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United States  
Department of  
Agriculture

Soil  
Conservation  
Service

Portland,  
Oregon

# Water Supply Outlook for Oregon as of MAY 1, 1984



CONTINUED



## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

\* The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

## PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209..

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

## PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



★ GPO 693-033

# **WATER SUPPLY OUTLOOK FOR OREGON**

**and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS**

*Issued*

May 1, 1984

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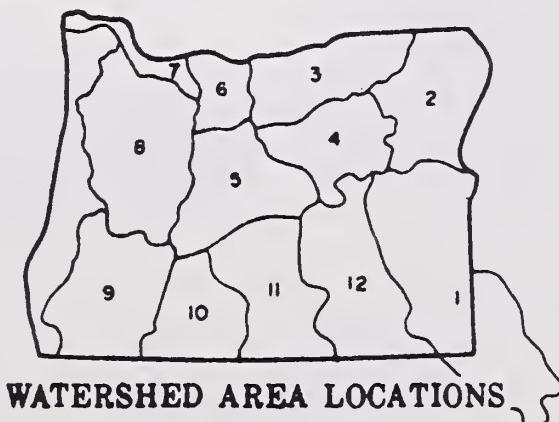
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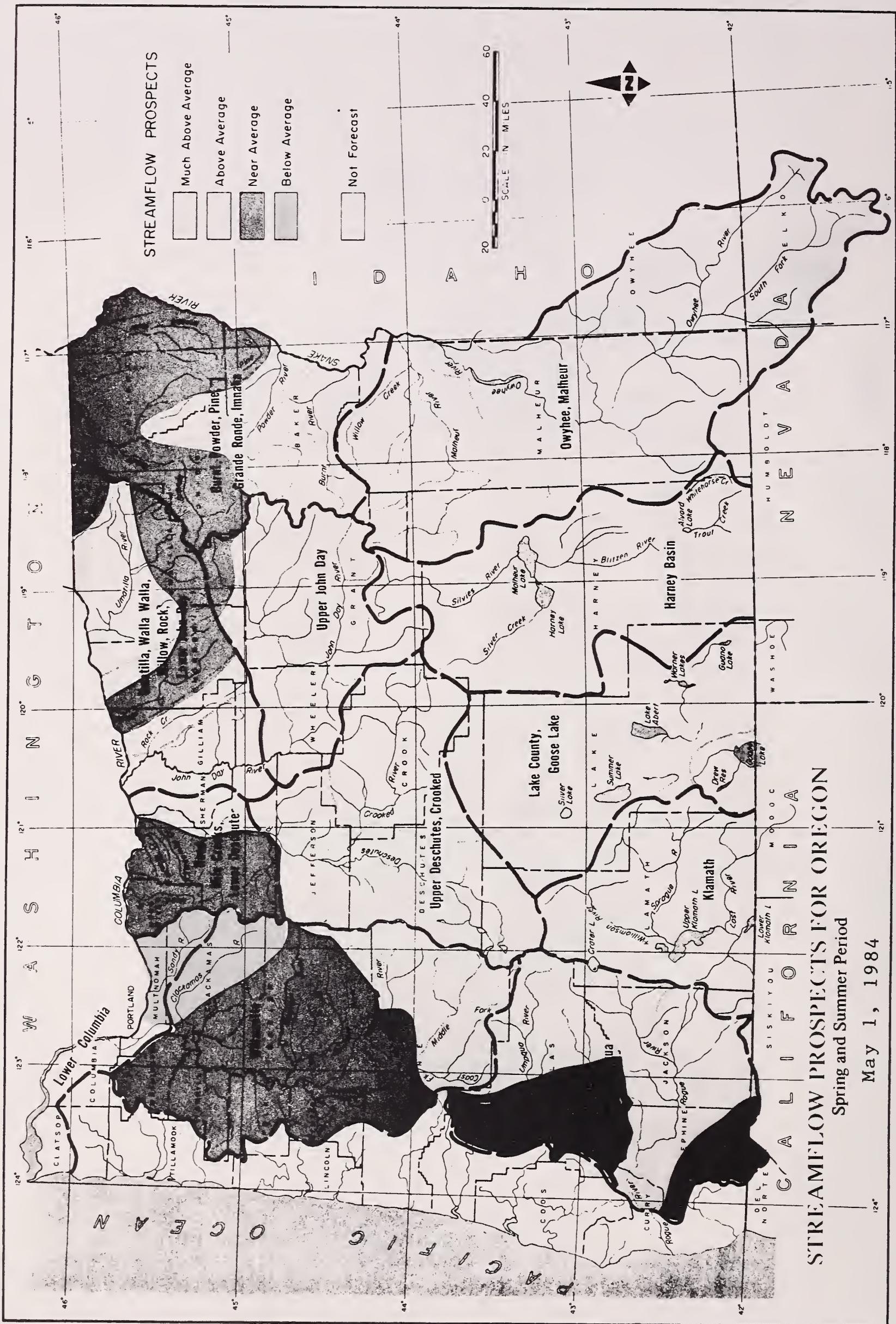
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LIST OF COOPERATORS.....INSIDE BACK COVER





# STREAMFLOW PROSPECTS FOR OREGON Spring and Summer Period

Spring and Summer Period

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

# WATER SUPPLY OUTLOOK AND SUMMARY

## FOR OREGON

May 1, 1984

\*\*\*\*\*  
\* Water supplies will be very good for most of Oregon this spring and summer.\*  
\* Generally, the snowpack is near average west of the Cascades and above, to \*  
\* much above average east of the Cascades. April precipitation was much \*  
\* above normal. Reservoir storage continues to be excellent. \*  
\*\*\*\*\*

### SNOW COVER

On the west side of the Cascades the snowpack is generally near average. It is above average on the Coast Fork and Middle Fork of the Willamette River. On the Rogue River drainage the snowpack is much above average. East of the Cascades the snowpack is predominantly above, to much above average. Exceptions to this are portions of Wallowa and Umatilla Counties which have a near normal snowpack. Portions of Klamath County have a below average snowpack.

### PRECIPITATION

April precipitation was heavy across most of the state. West of the Cascades it was 139% of normal. East of the Cascades it ranged from 117% of normal in Harney County to 229% in the Deschutes Basin. For the winter season the precipitation has been near normal west of the Cascades and around Mt. Hood. East of the Cascades it has ranged from 106 percent to 162 percent.

### RESERVOIR STORAGE

Reservoir storage is excellent throughout the state. Most reservoirs are full or nearly full. Of 24 irrigation reservoirs, the current usable storage is 2,930,000 acre feet which is 93% of capacity.

### STREAMFLOW

Streamflow is forecast to be above, to much above normal for most of Oregon this spring and summer. There are some small areas which are forecast to be near normal in the north and west part of the state. April streamflow was very high due to a rapid warming of a heavy snowpack. Streamflows ranged from 1½ times normal to 471% of average for the Owyhee reservoir inflow.

-continued on next page-

## STREAMFLOW (cont.)

Forecasts of representative Oregon streamflow are as follows:

STREAM	PERIOD	% OF AVERAGE
Owyhee net Inflow	May - July	268
Grande Ronde @ LaGrande	May - July	102
Umatilla @ Pendleton	May - July	120
Deschutes @ Benham Falls	May - July	110
Willamette, Mid. Fork near Oakridge	May - July	105
Rogue @ Raygold	May - July	114
Upper Klamath Lake net Inflow	May - July	127
Silvies near Burns	May - July	216

Malheur Lake in Harney County is expected to reach the highest levels in recent history. The July 1 elevation is forecast to be 4103.16 feet with a surface area of 121,200 acres.

These forecasts assume normal weather conditions will occur throughout the forecast period.

The forecasts in this bulletin are a result of a coordinated activity between the Soil Conservation Service and National Weather Service as an effort to provide the best possible service to the water user.

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

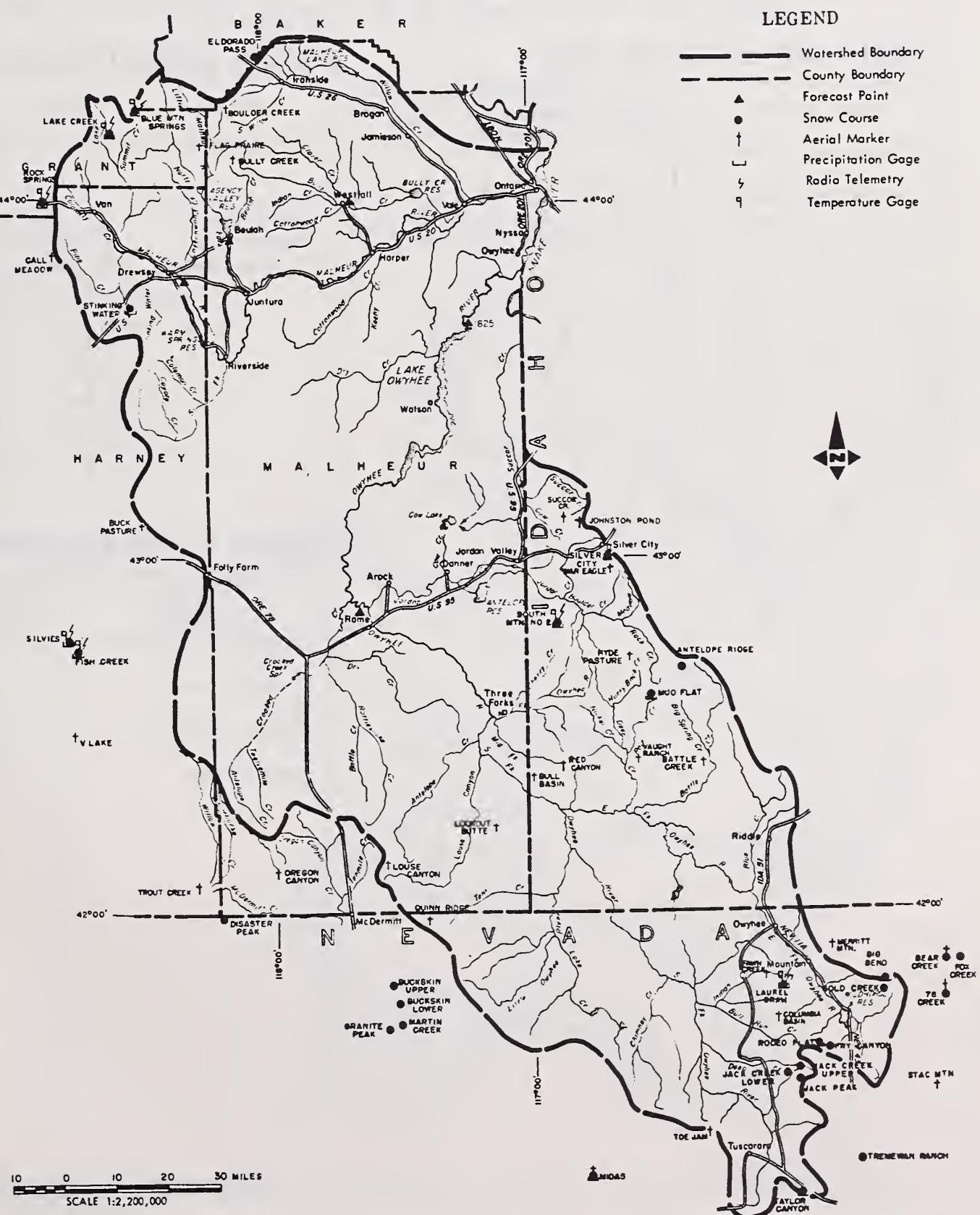
# WATER SUPPLY OUTLOOK

## OWYHEE, MALHEUR WATERSHEDS

### OREGON

### GENERAL OUTLOOK

Water supplies will be abundant this summer in Malheur County. The mountain snowpack still ranges from 1½ to 3 times normal. Precipitation was about 1½ times normal for April and the winter season. Reservoirs in the county are full or nearly full except for the Owyhee which has been drawn down to receive the snow melt. The Owyhee River will recede about one month later than normal this year. Streamflows are forecast to be 2 to 3 times normal this summer.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average c
Bully Creek at Warmsprings	33	229	March-May		14.4 b
Malheur near Drewsey	64	194	May-July		33
	67	197	May-Sept.		34
Malheur, North Fork at Beulah	70	200	May-July		35
	78	190	May-Sept.		41
Owyhee Reservoir net Inflow	502	268	May-July		187
	574	268	May-Sept.		214
Owhee at Rome	565	299	May-July		189 b
Succor Creek near Jordan Valley	14.0	275	May-July		5.1 b

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	2000	June 13	May 14
	1000	July 11	May 28
	500	Aug. 13	June 11

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average c
Beulah Reservoir	60.0	57.3	59.6	50.3
Bully Creek	30.0	30.0	30.0	24.0
Owyhee	715.0	632.6	667.4	618.4
Warmsprings	191.0	177.4	180.6	147.5

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
Jordan Creek	1	105	338a
Malheur River	2	90	172a
Owyhee River	1	105	338a

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

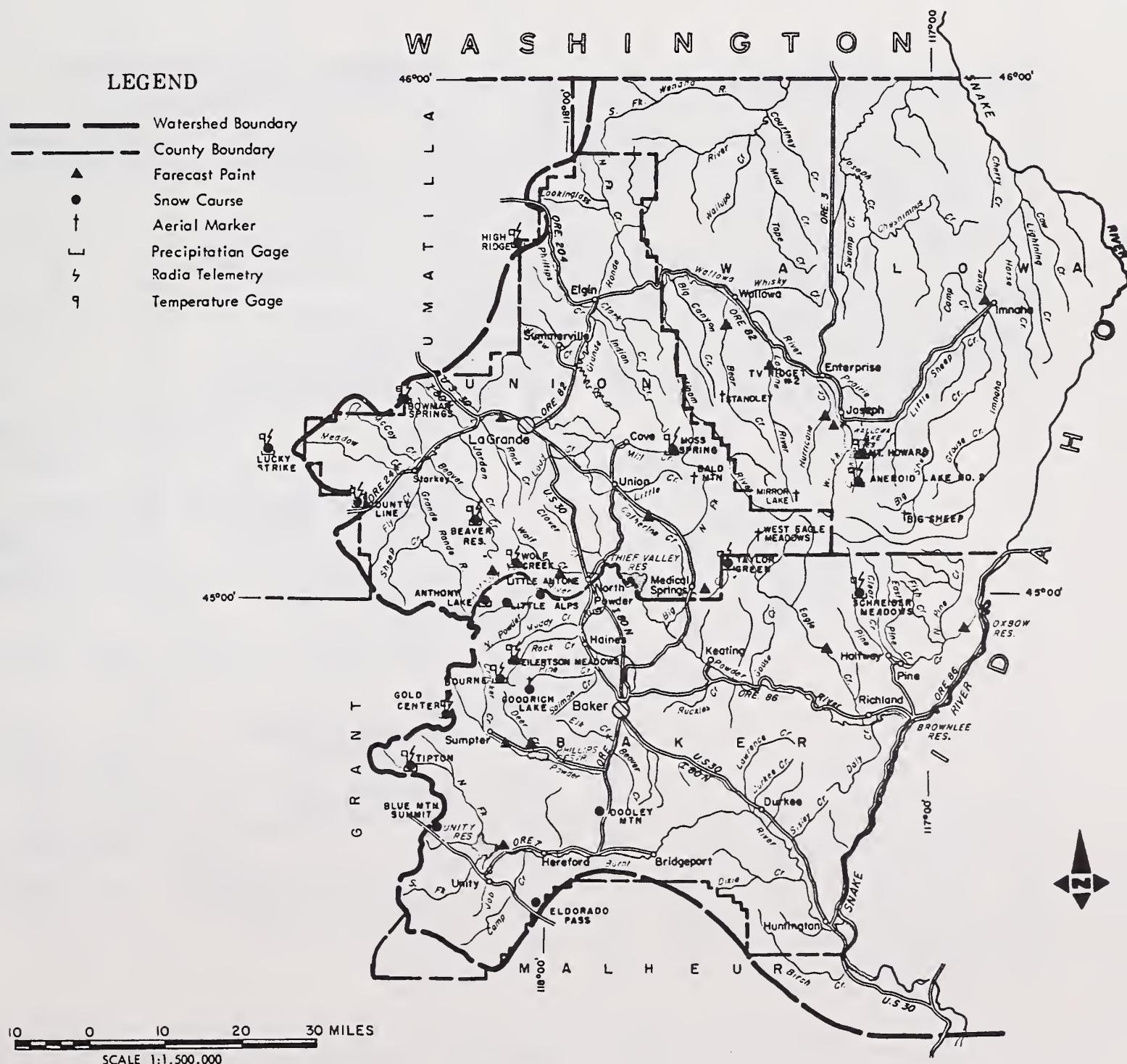
# WATER SUPPLY OUTLOOK

## BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Water supplies will be good this summer. The snowpack ranges from near normal to twice normal. April precipitation was 126% of average and 106% for the winter season. Most reservoirs are full or nearly full except for Wallowa Lake which is being kept down in anticipation of the snowmelt. Streamflows will recede about a week later than normal this year. Streamflows are forecast to be near normal to 1½ times normal this summer.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET
	Last Year	Average C		
Anthony Creek blw. North Fork nr. North Powder	14.1	104	May-July	13.5 b
Bear near Wallowa	75	129	May-Sept.	58
Big Creek blw. Burn Creek near Medical Spring	9.0	141	May-July	6.4 b
Burnt near Hereford	25	162	May-July	15.4
	27	161	May-Sept.	16.8
Catherine near Union	66	125	May-Sept.	53
Deer Creek above Phillips Res. near Sumpter	16.0	143	May-July	11.2 b
Eagle Creek above Skull Creek	188	128	May-July	147
	205	127	May-Sept.	162
Grande Ronde at La Grande	97	102	May-July	95
	101	102	May-Sept.	99
Hurricane near Joseph	43	98	May-Sept.	44 b
Imnaha at Imnaha	240	96	May-Sept.	249
Lostine near Lostine	117	101	May-Sept.	116
Pine Creek near Oxbow	150	104	May-July	144 b
Powder near Sumpter	61	149	May-July	41
	63	150	May-Sept.	42
Wallowa, East Fork near Joseph	8.2	101	May-July	8.1
	10.8	104	May-Sept.	10.4
Wallowa at Joseph	67	100	May-July	67
Wolf Creek Reservoir net Inflow	11.0	134	May-June	8.2 b

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Phillips Lake	73.5	69.0	70.5	59.1
Thief Valley	17.4	18.4	17.4	17.4
Unity	25.2	23.0	23.8	24.1
Wallowa Lake	37.5	21.3	24.8	30.9
Wolf Creek	10.4	11.1	10.3	--

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Burnt River	1	59	127a
Grande Ronde River above La Grande	2	167	127a
Powder River	2	80	191a
Wallowa, Imnaha, Catherine Creek	2	86	99a

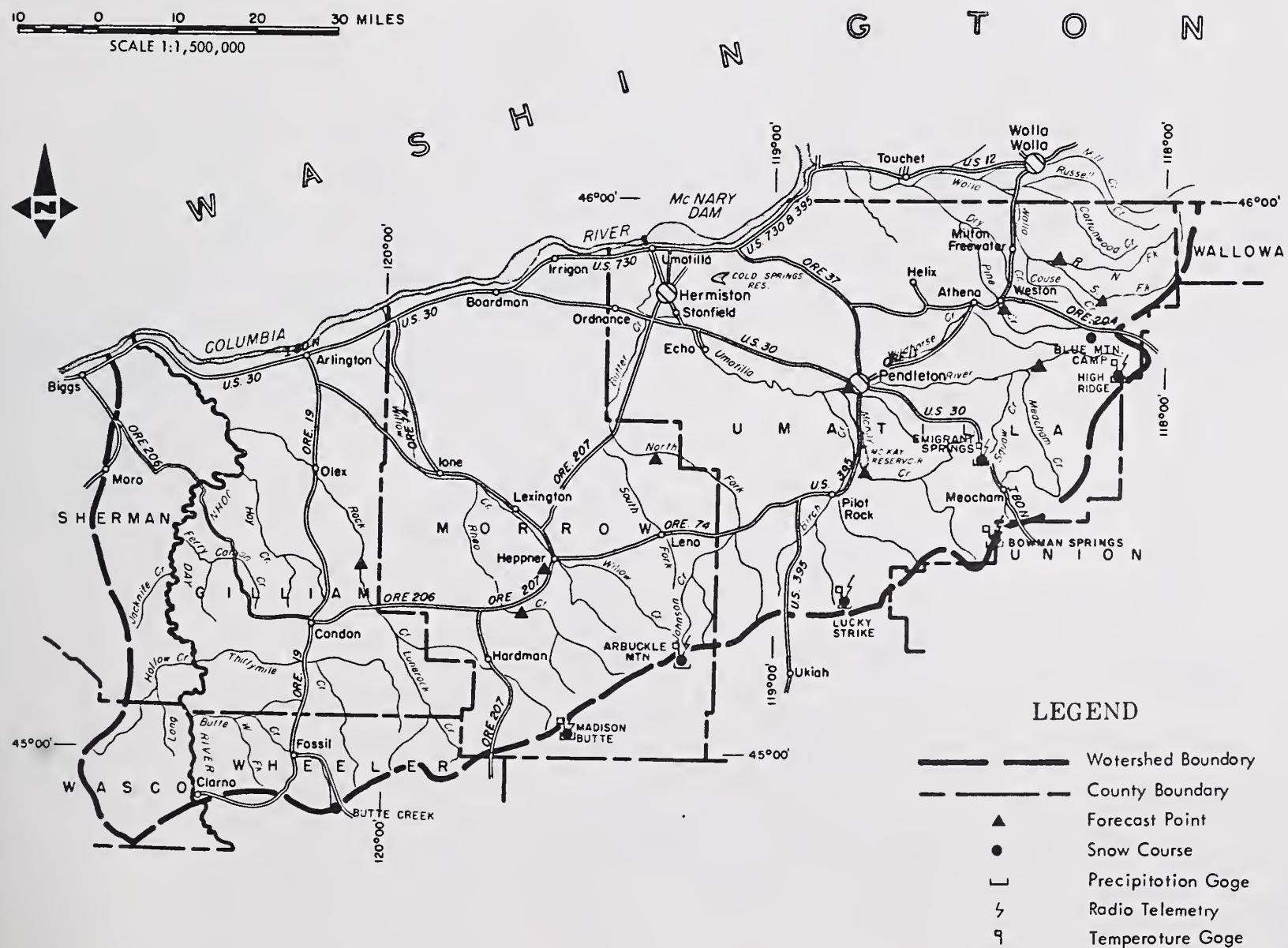
## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Eagle Cr.abv.Skull Cr.	225 160	Aug. 2 Aug. 18	July 25 Aug. 5
Catherine Creek near Union	61 100 50	Aug. 1 July 14 Aug. 5	49 July 9 July 28
Powder near Sumpter	100 20	June 30 July 30	June 25 July 22
Deer Cr. abv. Phillips Res. near Sumpter	40 10	June 21 July 12	June 17 July 6

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

**WATER SUPPLY OUTLOOK**  
**UMATILLA, WALLA WALLA, WILLOW, ROCK,**  
**LOWER JOHN DAY WATERSHEDS**  
**OREGON**  
**GENERAL OUTLOOK**

Good water supplies will be available this summer. Mountain snowpack is above average except on McKay Creek where it is near average. April precipitation was 124% of normal and it was 106% for the winter season. Reservoirs in the area are nearly full so irrigators with access to stored water supplies should have an adequate amount this year. Streamflows should range from 93% of average on McKay Creek to 129% on Couse and Pine Creeks.



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last year
Butter Creek near Pine City	4.1	111	May-July	3.7
Couse Creek near Milton	2.2	129	May-July	1.7
McKay near Pilot Rock	7.7	93	May-Sept.	8.3
Pine Creek near Weston	1.1	129	May-July	0.9 b
Rhea Creek near Heppner	2.1	95	May-July	2.2
Rock Creek above Cayuse Canyon near Condon	3.1	129	May-July	2.4 b
Umatilla near Gibbon	49	120	May-Sept	41
	56	120	May-Sept.	47
Umatilla at Pendleton	85	120	May-July	71
Walla Walla, South Fork near Milton	56	108	May-Sept.	52
Willow Creek at Heppner	2.9	100	May-July	2.9

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 10	May 17
So. Fork Walla Walla	200	June 12	June 9
	106	Aug.-Sept Min. flow	Avg. value 105

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Cold Springs	50.0	47.6	49.2	47.8
McKay	73.8	68.1	67.1	55.0

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
McKay Creek	1	100	90a
Umatilla River	1	142	126a
Walla Walla River	2	149	130a

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

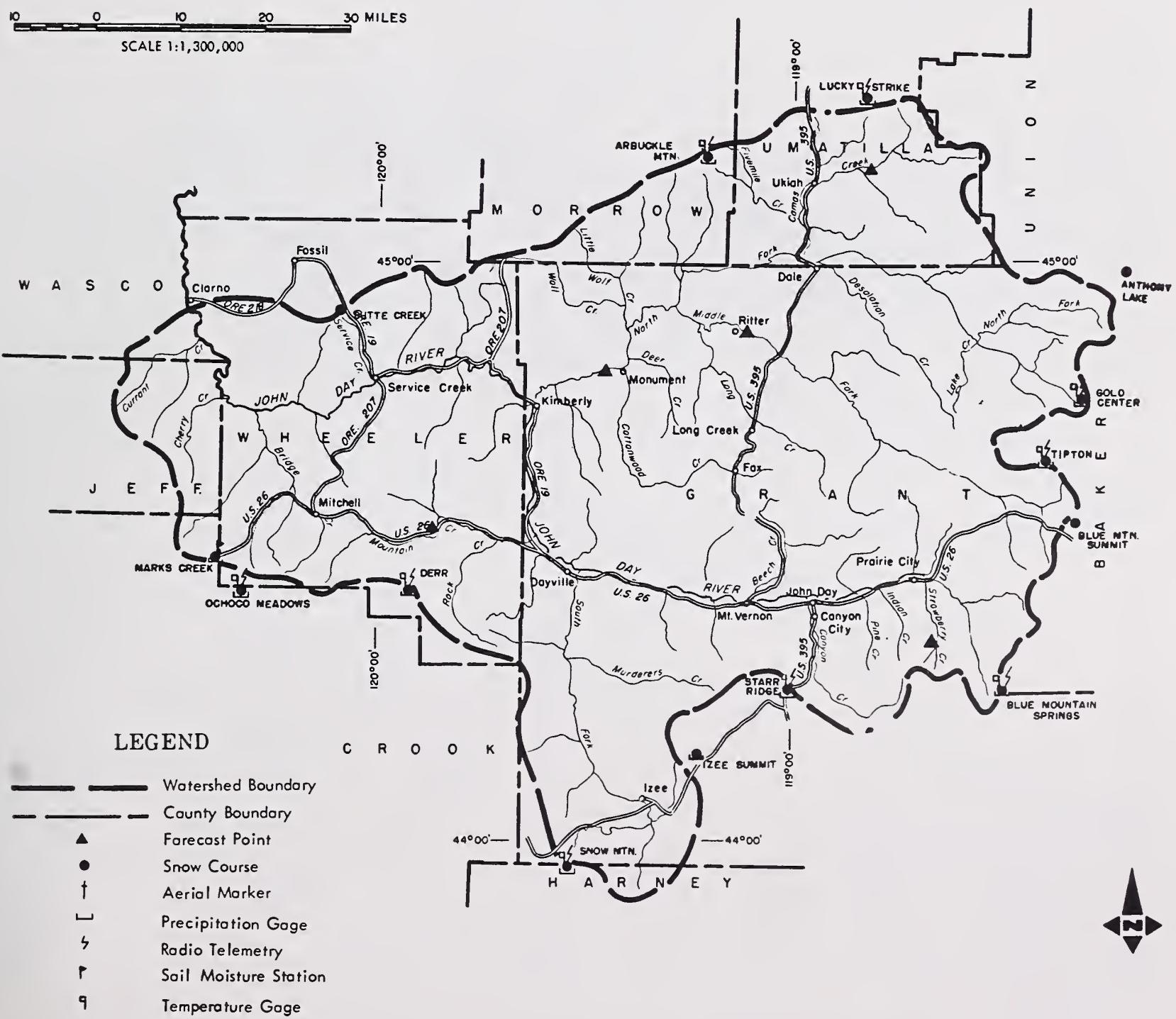
# WATER SUPPLY OUTLOOK

## UPPER JOHN DAY WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Streamflow in the John Day watershed is forecast to be above average this summer. The forecasts range from 105% for Camas Creek to 150% for Mountain Creek with the North Fork of the John Day River forecast at 130 percent. The snowpack is still above average in the watershed. April precipitation was almost 1½ times normal and 113% of normal for the winter season.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Camas Creek near Ukiah	17.5	105	May-July		16.7
John Day, Middle Fork at Ritter	111	159	May-July		70
	118	159	May-Sept.		74
John Day, North Fork at Monument	458	131	May-July		349
	476	130	May-Sept.		365
Mountain Creek near Mitchell	3.3	150	May-July		2.2 b
Strawberry near Prairie City	8.7	130	May-July		6.7
	9.6	130	May-Sept.		7.4

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
John Day at Service	324	Aug. 1	Avg. value 212

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
John Day, North Fork	3	90	186a
John Day above Dayville	2	99	197a

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

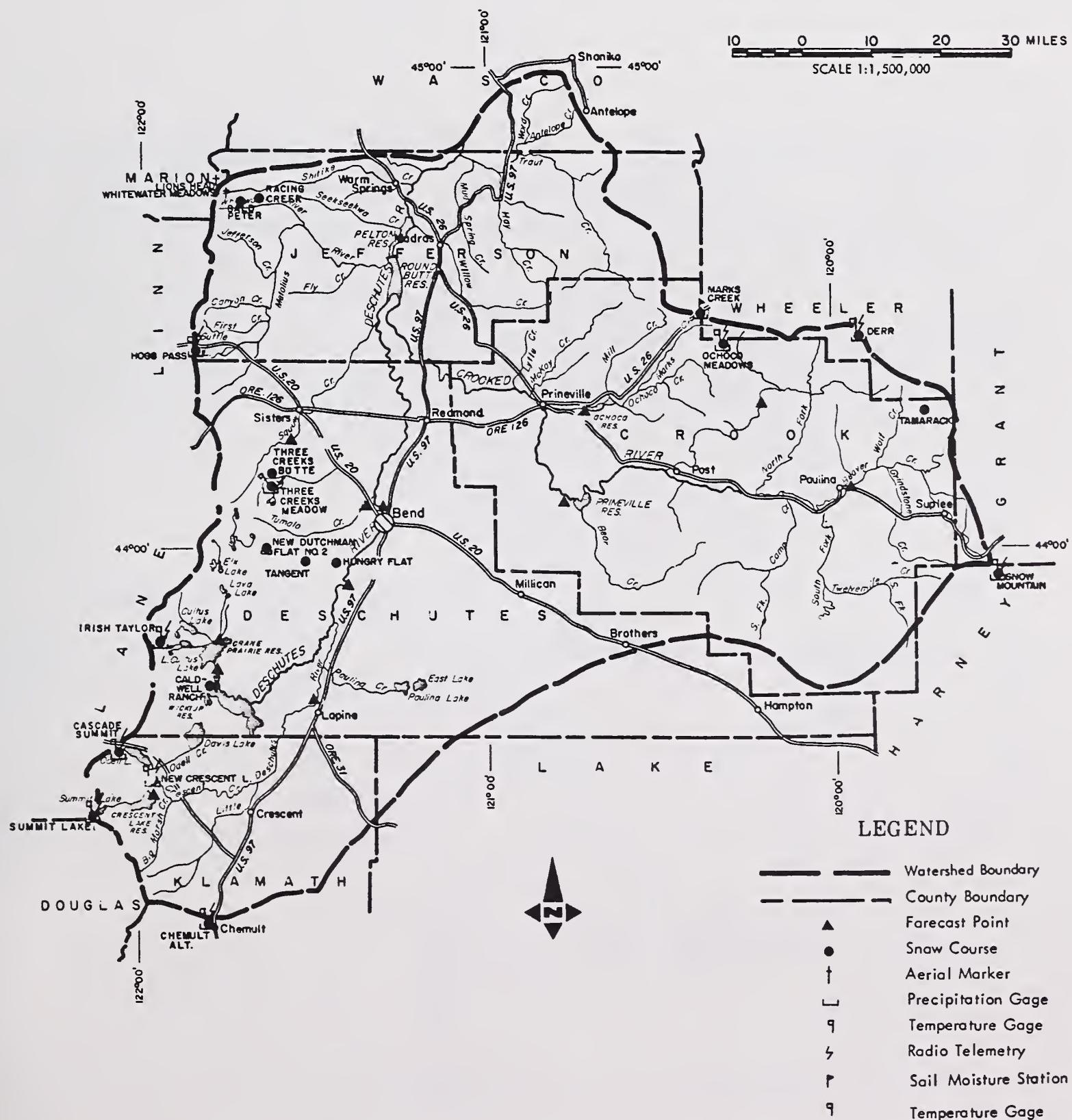
# WATER SUPPLY OUTLOOK

## UPPER DESCHUTES, CROOKED WATERSHEDS

### OREGON

### GENERAL OUTLOOK

Excellent water supplies will exist in the Deschutes and Crooked watersheds this summer. Mountain snowpack has increased from last month and is above average for this time of year. During April the area received the most precipitation within the state, with 229% of average amounts being recorded. It has been 129% for the winter season. In total, the five irrigation reservoirs are at capacity. Most streams should recede two weeks later than normal this summer. The exception to this is Tumalo Creek which will recede near the normal dates. Streamflow in Crook County will be 1½ to 2 times normal this season. In the Deschutes basin the streamflow will be above normal.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year	Average C
Beaver Creek near Paulina	7.6	158	May-July		4.8 b
	7.9	161	May-Sept.		4.9 b
Crane Prairie Reservoir total Inflow	71	118	May-July	60	
	109	109	May-Sept.	100	
Crescent at Crescent Lake	19.5	141	May-July		13.8
	24	137	May-Sept.		17.5
Crooked River near Prineville	57	163	May-July		35
Crooked R., Nor. Fk. blw. Lookout Cr. nr Paulina	8.8	210	May-July		4.2 b
Deschutes below Bend	189	109	Aug.-Sept		174
Deschutes at Benham Falls	306	110	May-July		277
	510	110	May-Sept.		464
Deschutes below Snow Creek	65	123	May-Sept.		53
Deschutes, Little near La Pine	71	140	May-Sept.		51
	84	140	May-July		60
Ochoco Reservoir net Inflow	14.2	160	May-July		8.9
Squaw near Sisters	47	107	May-Sept.		44
Tumalo near Bend	42	108	May-Sept.		39

## FORECAST DATE of LOW FLOW VALUES

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value	RESERVOIR	Usable Capacity	Usable Storage		
						This Year	Last Year	Average C
Crane Prairie net Inflow	410 230	Peak Oct. 31 May 21		Crane Prairie	55.3	55.0	55.0	45.8
Crooked R. near Post	100	June 19	June 1	Crescent Lake	86.9	83.6	74.6	66.5
Little Deschutes Near La Pine	400 200	June 23 July 24	June 7 July 8	Ochoco	47.5	45.2	40.8	37.8
Squaw Cr. nr. Sisters	100	Aug. 23	Aug. 16	Prineville	153.0	164.7	153.0	145.0
Tumalo Cr. near Bend	235 207 150 71	June 25 June 27 July 7 Aug. 7	June 23 June 25 July 5 Aug. 7	Wickiup	200.0	196.3	200.0	189.4
Deschutes below Bend	1500	**	July 1					

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Crooked, Ochoco	1	--	400a
Deshutes abv. Wickiup	1	101	137a
Little Deshcutes	4	81	122a
Tumalo & Squaw Crs.	1	76	112a

\*\* Deschutes will be above 1500 cfs all summer.

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK

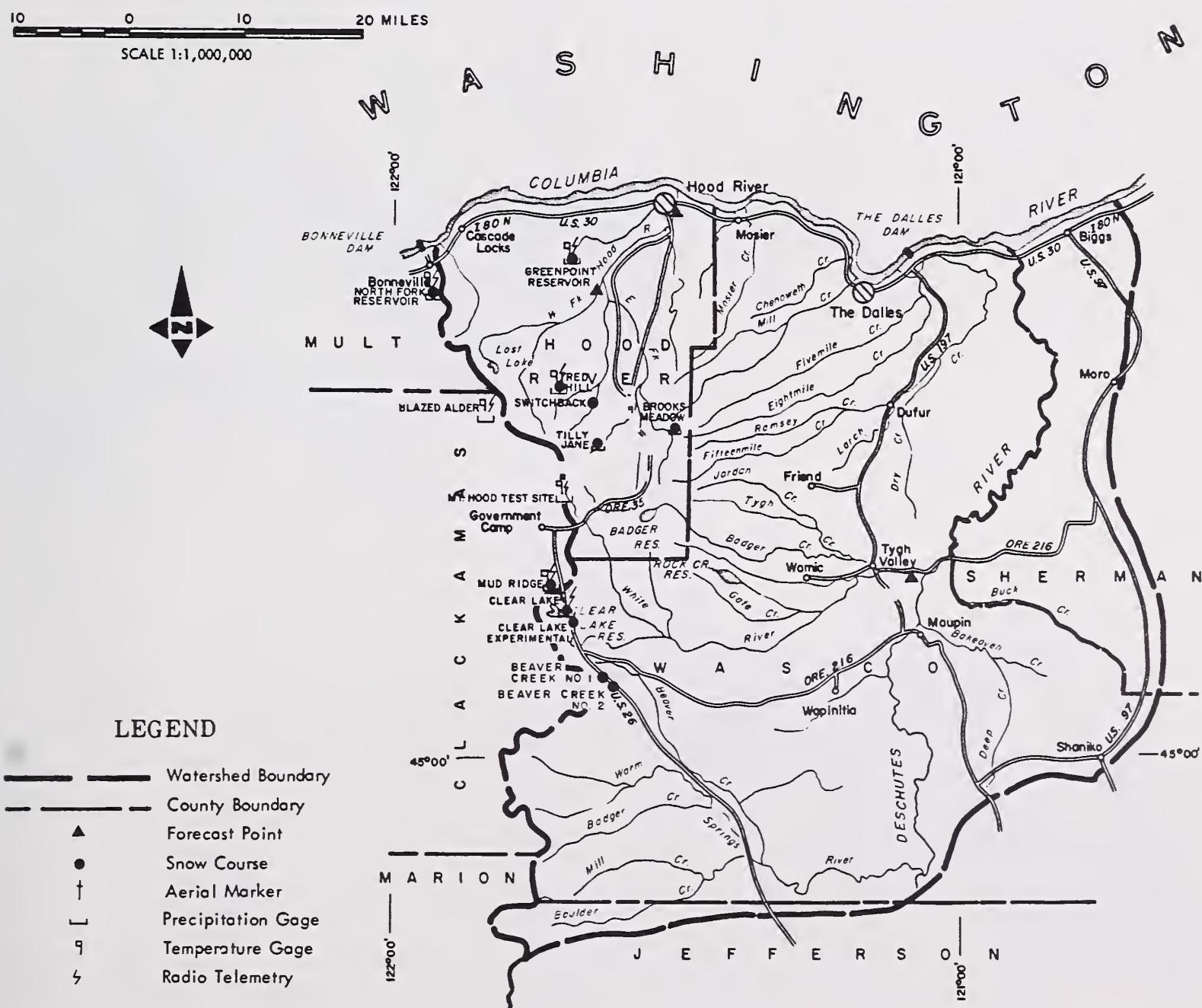
## HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

### OREGON

Area 6

#### GENERAL OUTLOOK

Water supplies will be near normal this summer. The mountain snowpack is 88% of average. April precipitation was 116 percent of normal and for the winter season it has been 93 percent. Reservoir storage is currently at 87% of normal for May 1. Some streams in the area will recede about a week earlier than normal this summer. Streamflows are forecast to be near normal this summer with the White River expected to flow at 89% of normal and Hood River at 103%.



# STREAMFLOW FORECASTS

BASIN STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
Hood River at Tucker Bridge near Hood River	168	103	May-July	163
	216	103	May-Sept.	210
Hood River, West Fork near Dee	80	96	May-July	83
	100	96	May-Sept.	104
White below Tygh Valley	67	87	May-July	77
	82	89	May-Sept.	92

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow  *Average cfs forecast to flow for this two-week period.  **Average cfs for period of record.	*35	July 15-31	**39
White below Tygh Valley	200	June 28	July 3
	127	Aug. 1	Avg. value 145

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Clear Lake (Wasco)	11.9	5.8	9.0	6.7

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Hood River	3	119	88a
White River	3	119	88a

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK

## LOWER COLUMBIA WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Water supplies are forecast to be below average for the rest of this season. The snowpack in the Columbia Basin as a whole is about 70% of normal. The precipitation in the Columbia Basin was 109% of average during April and 97% for the winter season. The Sandy River is forecast to flow at 80% of normal and the Columbia River at The Dalles is forecast to be 91% of normal.



#### LEGEND

- Watershed Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Marker
- Precipitation Gage
- ◆ Temperature Gage
- △ Radio Telemetry
- (50) River Miles

**SUMMARY of SNOW MEASUREMENTS**  
(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Sandy River	2	116	93a

**STREAMFLOW FORECASTS**

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year
Columbia at The Dalles	65,000	88	May-July	73,760
Sandy River near Marmot	80,000	91	May-Sept.	88,290
	178	80	May-July	220
	221	80	May-Sept.	276

**HISTORICAL DATA (Columbia River at The Dalles)**

YEAR	STREAMFLOW <sup>d</sup> (1,000 A.F.)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT.	APR - JUNE	MAY - JUNE		
1963	87,860	58,499	47,812	437	June 18
1964	110,422	73,512	63,670	662	June 18
1965	114,222	80,098	62,467	520	June 9
1966	87,386	58,250	45,962	396	June 12
1967	109,319	74,378	66,452	622	June 10
1968	89,102	55,593	47,994	404	June 13
1969	112,377	85,742	63,899	515	May 15
1970	88,243	62,993	55,227	425	May 28
1971	126,898	91,781	76,453	557	May 13
1972	135,500	97,041	81,451	619	June 20
1973	65,549	43,765	36,565	221	December 5
1974	139,501	99,035	78,946	588	June 20
1975	108,906	73,018	62,861	422	May 17
1976	122,771	79,084	62,554	418	May 14
1977	54,108	35,505	28,394	213	January 25
1963-77 Avg.	103,478	71,220	58,714	468	

**LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)**

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
RIVER MILES								
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

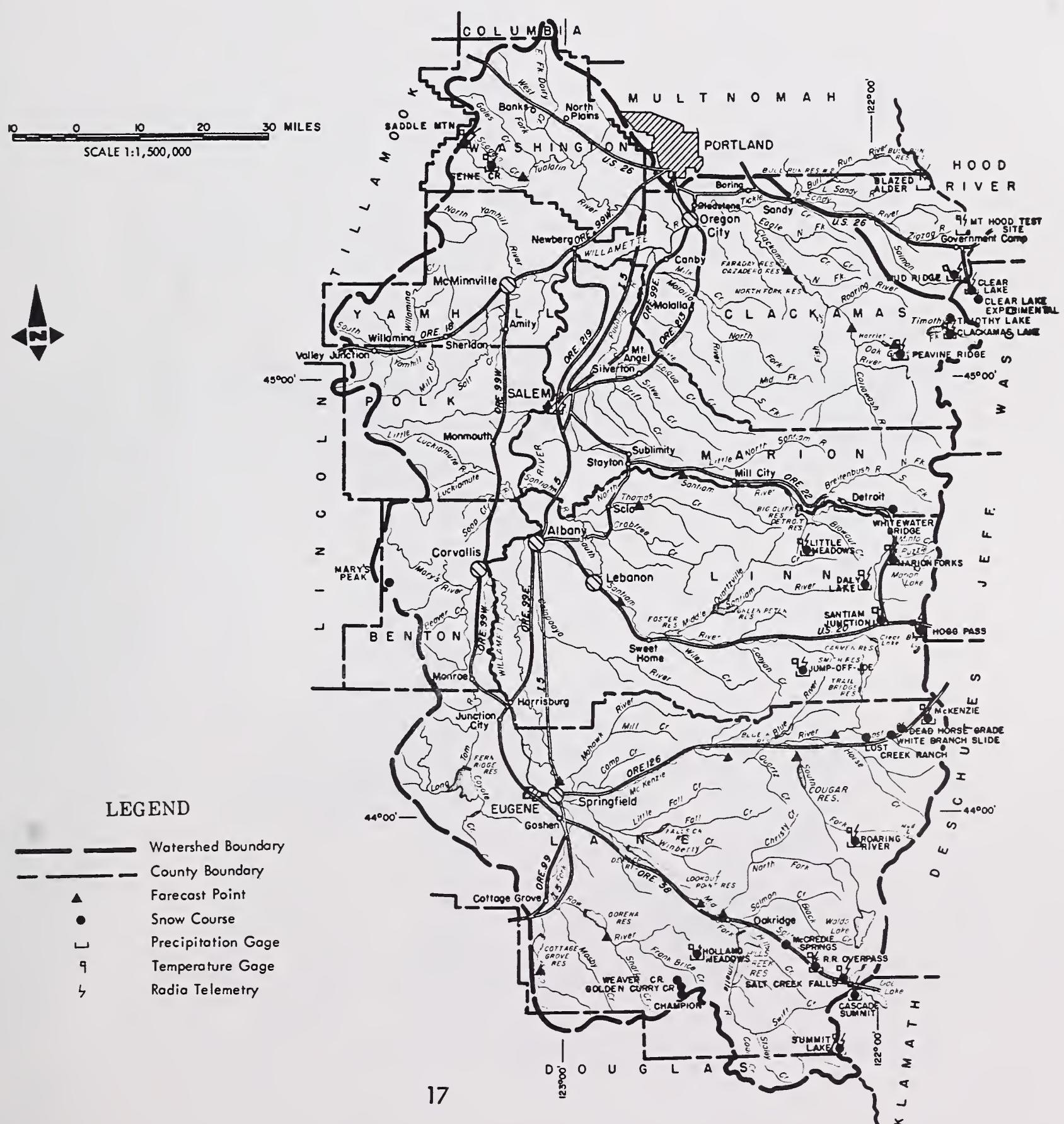
# WATER SUPPLY OUTLOOK

## WILLAMETTE WATERSHEDS

### OREGON

### GENERAL OUTLOOK

Water supplies should be near to above normal in the Willamette watershed this summer. The snowpack is near normal in the area except for the Clackamas River where it is much below average. April precipitation was very good with 139% of normal amounts being recorded. For the winter season it is near normal (102%). Streamflows will range from 86% of average for the Clackamas River to 128% for the Coast Fork of the Willamette River.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average C		Last Year	Average C
Clackamas at Estacada	389	88	May-July		443
	498	90	May-Sept.		555
Clackamas above Three Lynx	283	83	May-July		341
	374	86	May-Sept.		433
McKenzie at McKenzie Bridge	330	102	May-July		323
	458	98	May-Sept.		467
McKenzie near Vida	783	112	May-July		697
	1,029	111	May-Sept.		925
McKenzie, South Fork near Rainbow	161	118	May-July		137
	198	121	May-Sept.		164
Mohawk River near Springfield	37	116	May-July		32
Oak Grove Fork above Power Intake	89	95	May-July		94
	124	95	May-Sept.		131
Row near Dorena	59	116	May-July		51
	66	116	May-Sept.		57
Santiam, North at Mehama	483	101	May-July		478
	591	101	May-Sept.		585
Santiam, South at Waterloo	321	105	May-July		307
	374	107	May-Sept.		350
Scoggins Creek near Gaston	6.0	105	May-July		5.7
Thomas Creek near Scio	43	113	May-July		38
Willamette, Coast Fork near London	17.9	128	May-July		14.0
Willamette, Middle Fork below North Fork near Oakridge	750	105	May-July		714
Willamette, No. Fork of Mid Fork near Oakridge	575	105	May-Sept.		547
	132	112	May-July		118
	157	112	May-Sept.		140
Willamette at Salem	2,715	109	May-Sept.		2,490
	3,289	111	May-Sept.		2,974

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Clackamas River	1	1350	19a
McKenzie River	1	139	108a
Row River	-	--	--
Santiam River	3	104	97a
Willamette, Mid Fork	4	107	124a

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Blue River	85.6*	70.2	73.2	74.9
Cottage Grove	30.0*	24.4	25.1	23.4
Cougar	155.2*	129.1	134.8	109.2
Detroit	299.9*	263.0	274.4	231.2
Dorena	70.5*	52.6	55.8	55.7
Fall Creek	115.0*	97.4	102.6	95.2
Fern Ridge	94.2*	94.1	94.0	83.9
Foster	30.0*	15.6	0.9	16.6
Green Peter	270.0*	220.6	221.8	209.1
Hills Creek	200.0*	173.1	173.8	146.3
Lookout Point	337.2*	291.2	294.6	227.4
Timothy Lake	61.7	29.0	59.7	60.4
Henry Hagg Lake	53.0	53.6	53.0	--

\*Multiple purpose reservoir--space reserved primarily for flood runoff.

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK ROGUE, UMPQUA, WATERSHEDS OREGON GENERAL OUTLOOK

Water supplies are forecast to be near to much above average this summer. Mountain snowpack ranges from below average on the North Umpqua to much above average on the Rogue River and Butte Creek. Precipitation was 138% of normal during April and 104% during the October - April season. All principle irrigation reservoirs are full or nearly full except for Lost Creek which is only 57% of capacity. Streamflow ranges from 92% of average for Sucker Creek to 145% for Fourmile Lake net inflow.

## LEGEND

- Watershed Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course
- Precipitation Gage
- Temperature Gage
- Radio Telemetry

10 0 10 20 30 MILES  
SCALE 1:1,300,000



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Applegate near Copper	80	105	May-July	76	
	87	106	May-Sept.	82	
Big Butte Creek, So. Fork near Butte Falls	42	135	May-July	31	
Clearwater above Trap Creek	70	123	May-Sept.	57	
Cow Creek near Azalea	8.0	98	May-July	8.2	
Fourmile Lake net Inflow	4.9	145	May-Sept.	3.4	
Grave Creek at Pease Bridge near Placer	7.6	81	May-July	3.2	
Hyatt Reservoir net Inflow	3.3	138	May-July	2.4 b	
Illinois River near Kerby	83	98	May-July	85	
	90	98	May-Sept.	92	
Little Butte, N.Fk. at Fish Lake near Lake Cr.	15.1	135	May-Sept.	11.2 b	
Little Butte, S. Fk. near Lake Creek	24	139	May-July	17.3 b	
	27	136	May-Sept.	19.8 b	
Red Blanket Creek near Prospect	32	123	May-July	26	
Rogue above Prospect	205	115	May-July	178	
	268	115	May-Sept.	233	
Rogue, South Fork near Prospect	52	116	May-July	45	
	65	116	May-Sept.	56	
Rogue at Raygold near Central Point	553	114	May-July	484	
	726	113	May-Sept.	642	
Rogue at Grants Pass	732	119	May-July	617	
Sucker Cr. Blw. Little Grayback near Holland	34	92	May-July	37 b	
Umpqua, No.blw. Lemolo Lake nr. Toketee Falls	164	124	May-Sept.	138	
Umpqua, No. at Winchester	515	110	May-July	469	
Umpqua, South near Brockway	189	105	May-July	180	
Umpqua, South at Tiller	108	108	May-July	100	

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Cow Creek near Azalea	20	July 5	July 4
	10	Aug. 30	Aug. 19
Little Butte Creek, South Fork	100	May 30	May 15
South Umpqua near Brockway	90	Aug. 11	July 30
South Umpqua at Tiller	140	July 8	July 10
	90	July 27	July 30
	60	Aug. 22	Aug. 27

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Applegate	75.2	73.7	62.9	--
Emigrant Lake	39.0	38.9	38.4	37.1
Fish Lake	8.0	8.0	7.2	6.4
Fourmile Lake	16.1	N/R	11.3	11.5
Howard Prairie	60.0	63.0	60.0	52.8
Hyatt Prairie	16.1	15.8	16.1	14.6
Lost Creek	315.0	178.3	159.0	--

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

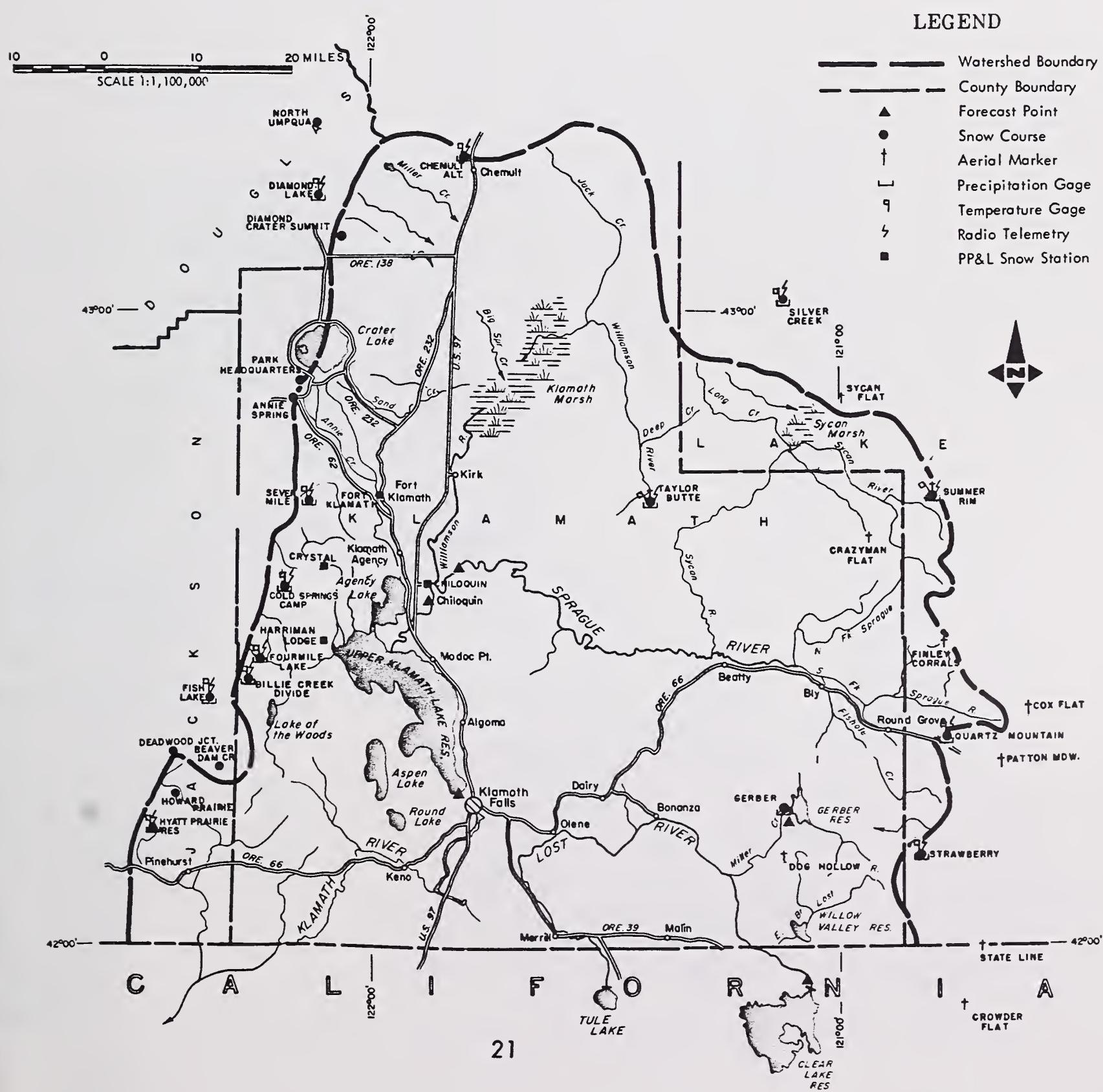
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Bear Creek	1	56	92a
Butte Creek	3	65	140a
North Umpqua	3	105	75a
Rogue River	3	94	140a

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

## GENERAL OUTLOOK

Klamath County should have excellent water supplies this spring and summer. The mountain snowpack is below average on the Williamson and above average on the Upper Klamath watershed. April precipitation was almost twice normal while for the winter season it has been 122% of normal. Combined reservoir storage in Klamath County is currently 95% of capacity. Streamflow is forecast to be much above average except for the Clear Lake inflow which is forecast to be 102%.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Clear Lake Reservoir Inflow	19.3	102	May-Sept.		19
Gerber Reservoir Inflow	9.0	191	May-Sept.		95
Sprague near Chiloquin	263	169	May-Sept.		156
Upper Klamath Lake net Inflow	420	127	May-Sept.		331
Williamson below Sprague River	420	156	May-Sept.		269

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Clear Lake	513.3	494.9	440.2	294.2
Gerber	94.3	95.8	94.0	76.8
Upper Klamath Lake	523.7	489.3	483.8	467.7

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Upper Klamath	4	88	134a
Williamson River	3	52	81a

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

Area 1

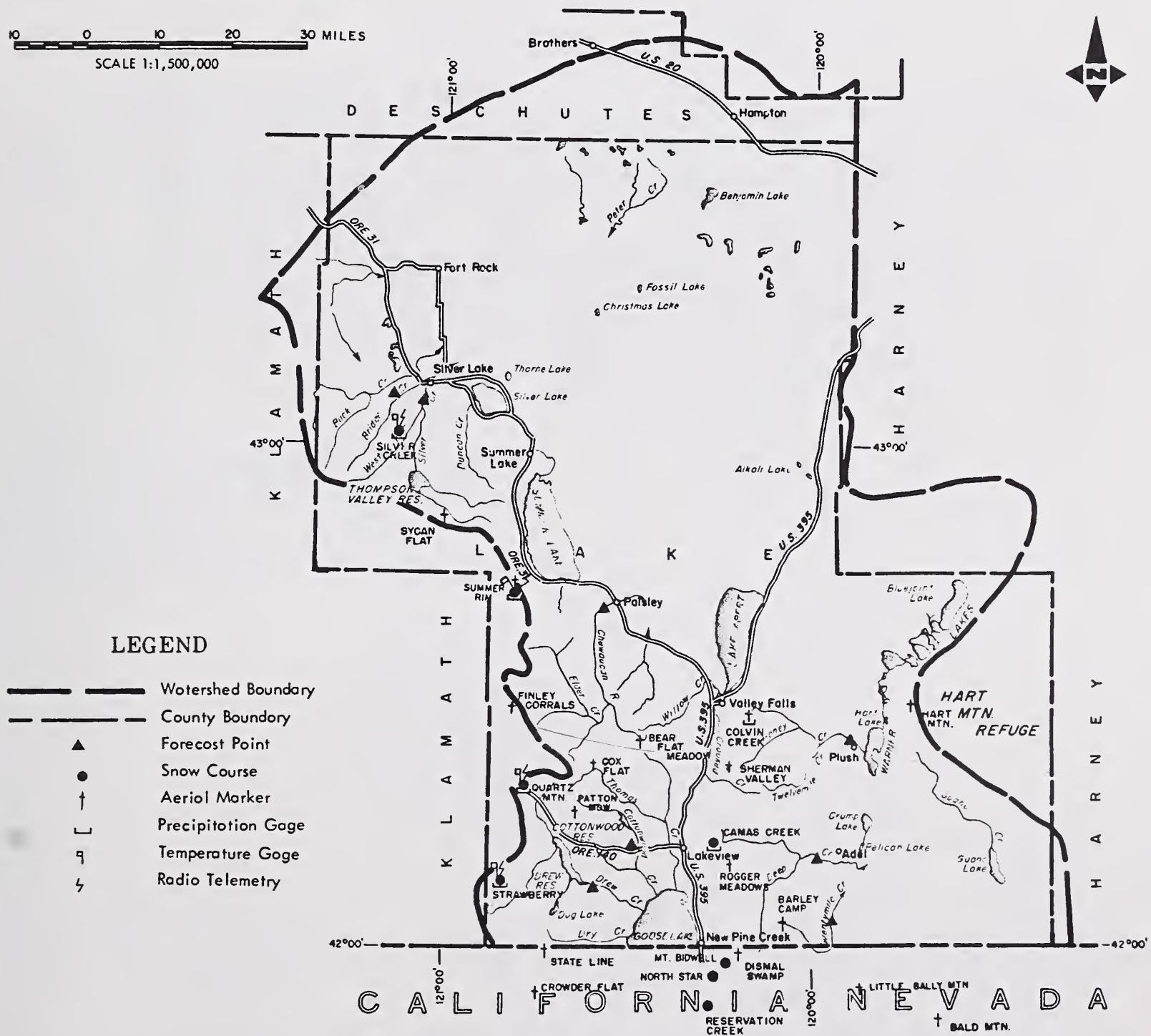
# WATER SUPPLY OUTLOOK

## LAKE COUNTY, GOOSE LAKE WATERSHEDS

### OREGON

## GENERAL OUTLOOK

Excellent water supplies are forecast for most of Lake County this summer. The snowpack is much below average for Drew Creek and much above average for Deep and Honey Creeks. Precipitation was  $1\frac{1}{2}$  times normal during April and 188% of normal for the October - April season. Streamflows should recede about a week late on Honey Creek and a month late on Deep and Twentymile Creeks. Streamflow forecasts are for much above normal flows for all streams except for average flows on Bridge and Silver Creeks.



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
Bridge Creek near Spahr Ranch near Silver Lake	2.9	97	May-July	30 b
Chewaucan near Paisley	80	151	May-July	53
	85	149	May-Sept.	57
Cottonwood Creek near Lakeview	9.6	160	May-July	6.0
Deep above Adel	80	186	May-July	43
	84	187	May-Sept.	45
Drews Reservoir net Inflow	16.5	176	May-July	9.4 b
Honey Creek near Plush	15.0	135	May-July	11.1
	15.3	135	May-Sept.	11.3
Silver Creek near Silver Lake	8.5	100	May-July	15.9 b
Twentymile near Adel	19.0	178	May-Sept.	10.7

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Deep Cr. above Adel	100	July 21	June 21
Honey Cr. near Plush	100	May 22	May 15
	50	June 9	May 30
Twentymile near Adel	50	July 17	June 2
	10	Aug. 18	July 3

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Cottonwood	8.7			
Drews	63.0			
Thompson Valley	19.5			

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

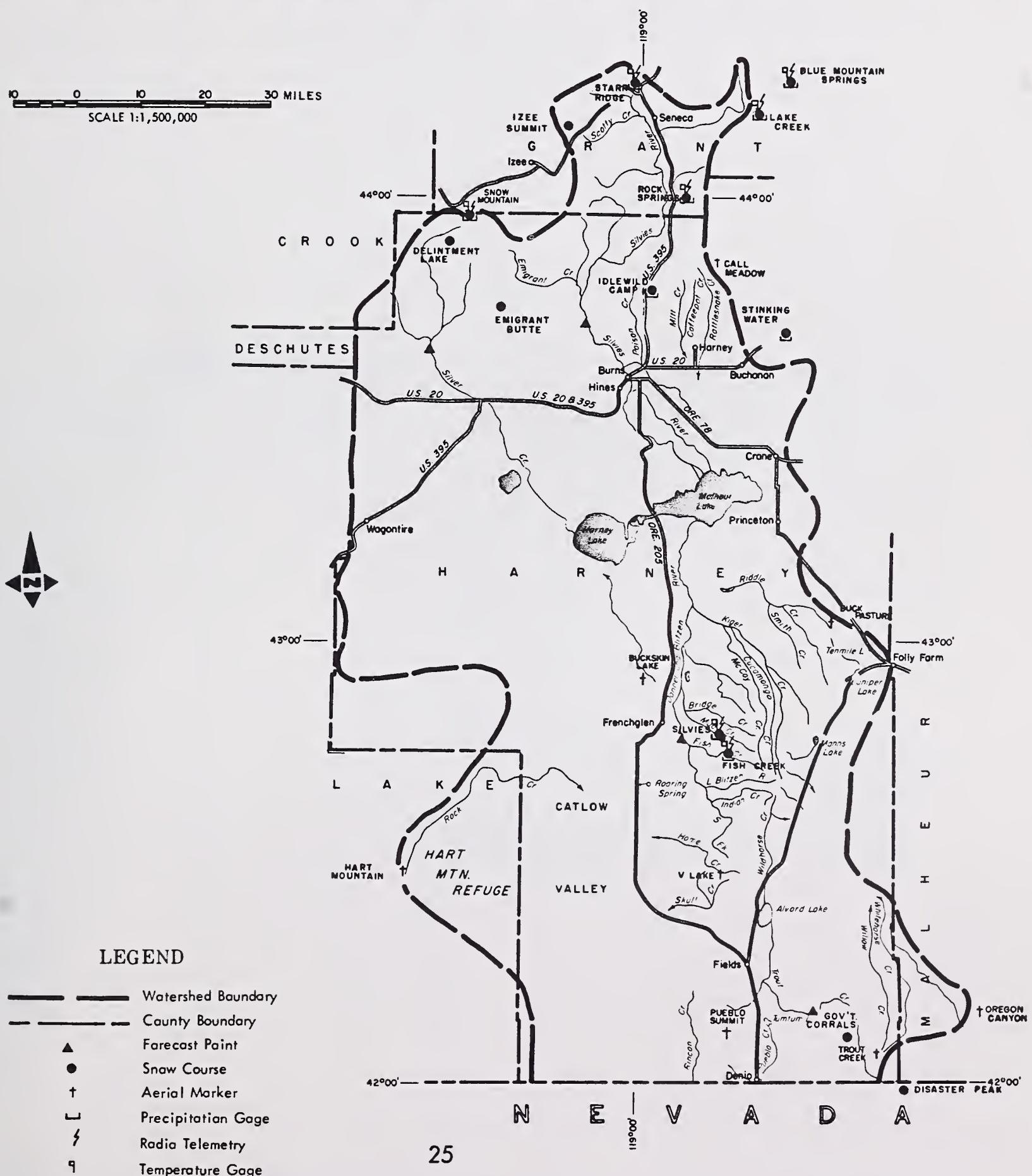
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Deep Creek	1	45	210a
Drew Creek	2	--	18a
Honey Creek	1	45	210a
Silver Creek	2	--	114a

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# **WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON**

## GENERAL OUTLOOK

Harney County will have abundant water supplies this year. Snowpack remains much above normal. April precipitation was 177% of normal and 136% for the winter season. Streams should recede about a month later than normal this year. Due to the rapid, large increase in elevation of Malheur Lake the July 1 forecast of lake elevation is 4103.16 feet.



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year	Average C
Donner und Blitzen near Frenchglen	70 76	167 162	May-July May-Sept.		42 47
Silver near Riley	8.6	154	May-July		5.6
Silvies River near Burns	80 83	216 213	May-July May-Sept.		37 39
Trout Creek near Denio, Nev.	11.5 13.4	194 194	May-July May-Sept.		5.9 6.9

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Silvies near Burns	400 200 100 50	June 16 June 30 July 25 Aug. 13	May 5 May 21 June 9 June 23
Donner und Blitzen	200 100	July 13 July 29	June 15 July 5
-----			
Malheur Lake at Break in Cole Island Dike near Voltage	GAGE HEIGHT	SURFACE ACRES	AVG. SURFACE ACRES
July 1 August 1	4103.16 4102.69	121,200 117,700	40,000 33,000

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Silvies River	3	162	271a

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 1

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD		
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	Last Yr.	Ave. <sup>c</sup>
<b>OWYHEE MALHEUR WATERSHEDS AREA 1</b>						
Antelope Ridge (Ida.)	e			--	--	
Battle Creek (Ida.) *	e			--	--	
Bear Creek (Nev.)	e			--	20.7	
Big Bend (Nev.)	e			--	2.2	
Blue Mountain Springs	e			20.6	10.8	
Blue Mtn. Spgs. Plw. (T)	5/1	--	36.6	--		
Boulder Creek *	e			--	--	
Buck Pature *	e			--	18.0	
Buckskin, Lower (Nev.)	e			--	--	
Buckskin, Upper (Nev.)	e			--	--	
Bull Basin (Ida.) *	e			--	--	
Bully Creek *	e			--	--	
Call Meadows *	e			--	--	
Columbia Basin (Nev.)	e			--	0.0	
Disaster Peak (Nev.)	e			--	7.4	
Eldorado Pass	5/2	0	0.0	0.0	0.0	
Fawn Creek (Nev.)	e			--	--	
Fish Creek (Rev.)	e			--	8.7	
Fish Creek Pillow (T)	5/1	--	59.9	54.3	--	
Flag Prairie *	e			--	--	
Fox Creek (Nev.)	e			--	--	
Fry Canyon (Nev.)	e			--	1.2	
Gold Creek (Nev.)	e			--	0.7	
Government Corrals	e			--	--	
Granite Peak (Nev.)	e			--	--	
Hyde Pasture (Ida.) *	e			--	0.0	
Jack Creek, Lower (Nev.)	e			--	0.6	
Jack Creek, Upper (Nev.)	e			--	4.2	
Jack Peak (Nev.)	e			--	27.0	
Johnston Pond (Ida.) *	e			--	--	
Lake Creek R.S.	e			--	--	
Lake Creek R.S. Plw. (T)	5/1	--	9.7	9.9	--	
Laurel Draw (Nev.)	e			--	1.3	
Lookout Butte *	e			--	--	
Louse Canyon *	e			--	9.2	13.3
Martin Creek (Nev.)	e			--	--	
Merritt Mountain (Nev.) *	e			--	0.0	
Midas (Nev.) *	e			--	--	
Mud Flat (Ida.)	e			--	--	
Oregon Canyon *	e			--	--	
Quinn Ridge (Nev.) *	e			--	--	
Red Canyon (Ida.) *	e			--	0.1	
Rock Springs	e			--	0.0	0.5
Rock Spgs. Plw. (T)	5/1	--	1.6	0.0	--	
Rodeo Flat (Nev.)	e			--	1.3	
76 Creek (Nev.) *	e			--	5.2	
Silver City (Ida.) *	e			--	0.1	
Silver City (Ida.)	e			--	14.2	10.3
Silvies	e			--	--	
Silvies Pillow (T)	No Report			--	--	
South Mountain #2 (Ida.)	e			--	7.7	
South Mtn. #2 Plw. (T)	5/1	--	36.4	--		
Stag Mountain (Nev.) *	e			--	2.9	
Stinking Water	4/30	0	0.0	0.0	0.0	
Succor Creek (Ida.) *	e			--	6.8	
Taylor Canyon (Nev.)	e			--	0.4	
Toe Jam (Nev.) *	e			--	12.2	
Tremewan Ranch (Nev.) *	e			--	0.0	
Trout Creek *	e			--	24.8	
"V" Lake *	e			--	--	
Vaught Ranch (Ida.) *	e			--	--	
War Eagle (Ida.) *	e			--	43.7	

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD		
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	Last Yr.	Ave. <sup>c</sup>
<b>BURNT, POWDER, PINE, IMNAHA GRANDE RONDE WATERSHEDS AREA 2</b>						
Aneroid Lake #2	4/25	94	33.3	45.5	36.4	
Aneroid Lake #2 Plw. (T)	5/1	--	35.5	39.2	--	
Anthony Lake	e			--	36.7	30.8
Bald Mountain (OR) *	e			--	29.7	--
Beaver Reservoir (Rev.)	4/27	37	12.6	8.2	8.7	
Beaver Res. Pillow (T)	5/1	--	12.7	0.3	--	
Big Sheep *	e			--	38.6	22.6
Blue Mtn.Summit (DISC.82)	e			--	4.1a	1.5
Bourne	e			--	16.6	6.9
Bourne Pillow (T)	5/1	--	23.8	26.5	--	
County Line (Rev.)	e			--	0.0	0.5
County Line Pillow (T)	5/1	--	0.8	0.0	--	
Dooley Mountain (DISC.82)	e			--	8.2a	1.4
Eillertson Meadows	e			--	12.8	4.2
Eillertson Meadows Plw (T)	5/1	--	9.8	13.8	--	
Eldorado Pass	5/1	0	0.0	0.0	0.0	
Gold Center	e			--	9.7	4.2
Gold Center Pillow (T)	5/1	--	5.5	3.4	--	
Goodrich Lake (DISC.82)	e			--	48.1a	38.5
Little Alps	e			--	18.4	13.3
Little Antone (Alt.)	e			--	1.1	0.8
Lucky Strike	e			--	7.0	8.7
Lucky Strike Pillow (T)	5/1	--	10.2	3.9	--	
Mirror Lake *	e			--	94.0	75.0
Moss Spring	e			--	24.8	--
Moss Spring Pillow (T)	5/1	--	30.8	25.6	--	
Mt. Howard Pillow (T)	4/30	--	31.0	--	--	
Schneider Meadow	e			--	47.6	--
Schneider Meadow Plw. (T)	5/1	--	6.2	--	--	
Standley *	e			--	53.6	36.4
Taylor Green (DISC. 83)	e			--	20.8	13.9b
Taylor Green Pillow (T)	5/1	--	31.9	28.4	--	
Tipton	e			--	4.5	1.2
Tipton Pillow (T)	5/1	--	18.2	15.6	--	
TV Ridge *	e			--	--	
West Eagle Meadows *	e			--	39.6	16.8
Wolf Creek Pillow (T)	5/1	--	28.4	21.3	--	
<b>UMATILLA, WALLA WALLA, ROCK, LOWER JOHN DAY WILLOW WATERSHEDS AREA 3</b>						
Arbuckle Mountain	e			--	3.0	2.8
Arbuckle Mountain Plw. (T)	5/1	--	34.7	35.0	--	
Blue Mountain Camp(DISC.82)	5/1	--	9.5a	4.1a	5.6	
Bowman Springs Plw. (T)	5/1	--	5.8	0.0	--	
Butte Creek Summit	e			--	--	
Emigrant Springs	e			--	0.0	0.2
Emigrant Springs Plw. (T)	5/1	--	0.4	0.0	--	
High Ridge Pillow (T)	No Report			--	29.9	--
Lucky Strike	e			--	7.0	8.7
Lucky Strike Pillow (T)	5/1	--	10.2	3.9	--	
Madison Butte Pillow (T)	5/1	--	6.9	0.0	--	

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 1

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST RECORD	
				Water Content (Inches)	Last Yr. Ave. °C
<b>UPPER JOHN DAY WATERSHEDS AREA 4</b>					
Anthony Lake	e			36.7	30.8
Arbuckle Mountain	e			3.0	2.8
Arbuckle Mountain Plw. (T)	5/1	--	34.7	35.0	--
Blue Mountain Springs	e			20.6	10.8
Blue Mtn. Spgs. Plw. (T)	5/1	--	36.6	--	--
Blue Mountain Sum. (DISC. 82)	e			4.1a	1.5
Butte Creek Summit	e			--	--
Derr	e			--	2.7
Derr Pillow (T)	5/1	--	22.5	25.9	--
Gold Center	e			9.7	4.2
Gold Center Plw. (T)	5/1	--	5.5	3.4	--
Izee Summit (DISC. 82)	e			2.2a	2.1
Lucky Strike	e			7.0	8.7
Lucky Strike Pillow (T)	5/1	--	10.2	3.9	--
Marks Creek	4/30	1	0.4	--	--
Ochoco Meadows	e			--	--
Ochoco Meadows Plw. (T)	5/1	--	13.0	12.8	--
Snow Mountain (DISC. 82)	e			18.0a	--
Snow Mountain Plw. (T)	5/1	--	22.2	22.9	--
Starr Ridge	e			1.0	--
Starr Ridge Plw. (T)	5/1	--	0.6	0.0	--
Tipton	e			4.5	1.2
Tipton Pillow (T)	5/1	--	18.2	15.6	--
<b>UPPER DESCHUTES, CROOKED WATERSHEDS AREA 5</b>					
Bald Peter	5/1	88	35.6	50.2	34.5
Beaver Creek #1	No Report				
Beaver Creek #2	No Report				
Caldwell Ranch (DISC. 82)	e			7.5a	--
Cascade Summit	e			31.2	24.4
Cascade Summit Plw. (T)	5/1	--	44.9	36.9	--
Chemult Alternate	4/30	4	0.1	9.2	1.5
Chemult Alt. Plw. (T)	5/1	--	0.2	5.4	--
Derr	e			--	2.7
Derr Pillow (T)	5/1	--	22.5	25.9	--
Hogg Pass (DISC. 83)	e			39.5	42.4
Hogg Pass Pillow (T)	5/1	--	44.9	--	--
Hungry Flat	e			0.0	0.0
Irish-Taylor Pillow (T)	5/1	--	54.5	42.7	--
Lionshead *	5/1	--	16.2	21.6	7.2
Marks Creek	4/30	1	0.4	--	--
New Crescent	e			13.9	4.7
New Crescent Lake Plw. (T)	5/1	--	1.5	11.9	--
New Dutchman Flat #2	e			67.5	53.3
Ochoco Meadows	e			--	--
Ochoco Meadows Plw. (T)	5/1	--	13.0	12.8	--
Racing Creek	5/1	29	9.8	15.6	10.7
Snow Mountain (DISC. 82)	e			18.0a	--
Snow Mountain Plw. (T)	5/1	--	22.2	22.9	--
Summit Lake Pillow (T)	5/1	--	61.4	53.0	--
Tamarack (DISC. 82)	e			0.5a	--
Tangent	e			28.8	13.4
Three Creek Butte	e			1.5	1.6
Three Creek Meadow	e			20.4	12.3
Three Creek Mdw. Plw. (T)	5/1	--	24.9	26.2	--
Whitewater Meadow *	5/1	--	0.0	0.0	0.0

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST RECORD	
				Water Content (Inches)	Last Yr. Ave. °C
<b>HOOD, MILE CREEK, LOWER DESCHUTES WATERSHEDS AREA 6</b>					
Brooks Meadow	e				4.2 3.6
Clear Lake	e				0.0 5.8
Clear Lake Pillow (T)	5/1	--		15.6	0.0 --
Clear Lake Expt.	e				2.0 10.8
Greenpoint (DISC. 83)	e				-- --
Greenpoint Pillow (T)	5/1	--		0.0	0.0 --
High Prairie	4/27	107		47.9	-- --
Mt. Hood Test Site (T)	5/1	--		78.7	65.3 --
Mud Ridge Pillow (T)	5/1	--		24.1	-- --
Red Hill	e				-- --
Red Hill Pillow (T)	No Report				
Switchback (DISC. 82)	e				0.0a --
Tilly Jane (DISC. 82)	e				35.0a --
<b>LOWER COLUMBIA WATERSHED AREA 7</b>					
Blazed Alder Pillow (T)	5/1	--		30.1	9.2 --
Mt. Hood Test Site (T)	5/1	--		78.7	65.3 --
Mud Ridge Pillow (T)	5/1	--		24.1	-- --
North Fork Res. (T)	5/1	--		2.9	0.4 --
<b>WILLAMETTE WATERSHEDS AREA 8</b>					
Cascade Summit	e				31.2 24.4
Cascade Summit Plw. (T)	5/1	--		44.9	36.9 --
Champion (DISC. 82)	e				9.6a 27.1
Clackamas Lake	e				-- --
Clackamas Lake Plw. (T)	4/30	--		3.7	0.0 --
Clear Lake	e				0.0 5.8
Clear Lake Plw. (T)	5/1	--		15.6	-- --
Clear Lake Expt.	e				2.0 10.8
Daly Lake Plw. (T)	5/1	--		0.5	0.6 --
Dead Horse Grade	e				0.0 --
Golden Curry Creek (DISC. 82)	e				0.0a 1.1
Hogg Pass (Disc. 83)	e				35.9 39.2
Hogg Pass Pillow (T)	5/1	--		44.9	-- --
Holland Meadows Plw. (T)	5/1	--		27.6	27.7 --
Jump Off Joe Pillow (T)	5/1	--		0.7	0.0 --
Little Meadows Plw. (T)	5/1	--		28.2	18.0 --
Lost Creek Ranch (DISC. 82)	e				0.0a 0.0
Marion Forks	e				0.0 5.4
Marion Forks Pillow (T)	5/1	--		0.1	0.0 --
Mary'a Peak	e				-- 9.2
McCredie Springs (DISC. 82)	e				0.0a --
McKenzie	e				37.5 44.4
McKenzie Pillow (T)	5/1	--		50.3	33.2 --
Mt. Hood Test Site (T)	5/1	--		78.7	65.3 --
Peavine Ridge Pillow (T)	5/1	--		2.7	0.2 --
Railroad Overpass	e				0.0 0.0
Railroad Overpass Plw. (T)	5/1	--		0.0	0.0 --
Roaring River Plw. (T)	5/1	--		37.7	28.7 --
Saddle Mtn. Pillow (T)	5/1	--		0.0	0.0 --
Salt Creek Falls	e				1.4 10.1
Salt Creek Falls Plw. (T)	5/1	--		24.9	8.1 --
Santiam Junction	e				3.9 13.4
Santiam Junction Plw. (T)	5/1	--		11.9	8.1 --
Seine Creek Pillow (T)	5/1	--		0.0	0.5 --
Summit Lake Pillow (T)	5/1	--		61.4	53.0 --
Timothy Lake	4/12	31		9.7	-- 13.3
Weaver Creek (DISC. 82)	e				0.0a 0.0
White Branch Slide (DISC. 82)	e				0.0a 0.3b
Whitewater Bridge (DISC. 82)	e				0.0a 0.0

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 1

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (in.)	Water Cont. (in.)	Water Content (Inches)	Last Yr.
<b>ROGUE, UMPQUA WATERSHEDS AREA 9</b>					
Althouse #2	e			--	--
Althouse #3	e			--	--
Annie Springs (Disc. 83)	5/1	--	57.7	72.4a	45.8
Annie Springs (Rev.)	4/30	128	56.2	71.1	--
Beaver Dam Creek	5/3	11	5.3	17.2	6.9
Bigelow Camp Plw. (T)	5/1	--	7.6	34.8	--
Big Red Mtn (DISC.83)	e			--	--
Big Red Mtn. Rev.	e			--	--
Big Red Mtn. Plw. (T)	5/1	--	38.3	65.2	--
Billie Creek Div.(DISC.83)	e			26.2	14.3
Billie Cr. Div. Plw. (T)	5/1	--	31.4	22.6	--
Caliban (Alternate)	4/27	88	36.0	57.8	34.9
Champion (DISC. 82)	e			9.6a	27.1
Cold Spgs. Camp (DISC. 83)	e			53.0	33.3
Cold Springs Camp Rev.	e			--	--
Cold Spgs. Camp Plw. (T)	5/1	--	46.1	45.8	--
Deadwood Junction	5/3	0	0.0	0.0	0.0
Diamond-Crater Sum.(DISC.82)	5/1	--	38.9a	48.3a	29.2
Diamond Lake	e			22.0	16.3
Diamond Lake Plw. (T)	5/1	--	17.7	--	--
Fish Lake	e			10.6	--
Fish Lake Pillow (T)	No Report			6.8	--
Fourmile Lake (DISC. 83)	e			41.2	19.7b
Fourmile Lake Plw. (T)	4/30	--	48.4	42.7	--
Grayback Peak	e			--	--
Howard Prairie Reservoir	5/3	0	0.0	3.8	2.4
Hyatt Prairie Reservoir	5/3	0	0.0	--	3.2
Hyatt Prairie Res. Plw. (T)	5/1	--	0.1	10.9	--
King Mountain #1	4/25	6	0.8	3.5	4.5
King Mountain #2	4/25	4	0.7	0.0	2.4
King Mountain #2 Plw. (T)	4/25	--	0.6	0.0	--
King Mountain #3	4/25	0	0.0	0.0	0.0
King Mountain #4	4/25	0	0.0	0.0	--
King Mountain #5	4/25	0	0.0	0.0	--
King Mountain #6	4/25	0	0.0	0.0	--
Mt. Ashland Switchback	4/27	92	34.0	61.0	35.3
Mule Creek	4/25	--	0.1	0.0	1.9
North Umpqua	4/27	11	4.1	2.1	5.5
Page Mountain	e			--	--
Park Hdqts. (Disc. 83)	5/1	--	80.2a	98.3a	60.6
Park Headquarters (Rev.)	4/29	170	80.8	--	--
Red Butte #1	4/24	19	7.5	5.6	10.5
Red Butte #2	4/24	3	0.3	0.0	4.1
Red Butte #3	4/24	0	0.0	0.0	0.0
Red Butte #4	4/24	0	0.0	0.0	0.0
Red Butte #5	4/24	0	0.0	0.0	0.0
Red Butte #6	4/24	0	0.0	0.0	0.0
Seven Mile	e			52.5	--
Seven Mile Pillow (T)	5/1	--	25.3	--	--
Silver Burn	5/1	0	0.0	--	2.6
Siskiyou Summit	e			--	--
Ski Bowl Road	4/27	77	31.0	54.6	24.8
South Fork Canal	5/1	0	0.0	0.0	0.0
Trap Creek	4/27	9	2.8	0.1	4.8

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (in.)	Water Cont. (in.)	Water Content (Inches)	Last Yr.
<b>KLAMATH WATERSHEDS AREA 10</b>					
Annie Springs (Disc. 83)	5/1	--		57.7	72.4a
Annie Springs (Rev.)	4/30	128		56.2	71.7
Billie Creek Dv.(DISC.83)	e				26.2
Billie Cr. Div. Plw. (T)	5/1	--		31.4	22.6
Chemult Alternate	4/30	4		0.1	9.2
Chemult Alternate Plw. (T)	5/1	--		0.2	5.4
Chiloquin (PP&L)	4/30	0		0.0	--
Cold Spgs. Camp (DISC. 83)	e				52.0a
Cold Springs Camp Rev.	e				53.0
Cold Spgs. Camp Plw. (T)	5/1	--		46.1	45.8
Crazyman Flat *	5/3	15		6.2	14.6
Crowder Flat (Calif)	e				--
Crystal (PP&L)	4/30	0		0.0	--
Diamond-Crater Sum.(DISC.82)	5/1	--		38.9a	48.3a
Dog Hollow *	e				--
Finley Corrals *	No Report				30.7
Fort Klamath (PP&L)	4/30	0		0.0	--
Fourmile Lake (DISC. 83)	e				41.2
Fourmile Lake Plw. (T)	4/30	-		48.4	42.7
Gerber	e				--
Harriman (PP&L)	4/30	0		0.0	--
Howard Prairie Reservoir	5/3	0		0.0	3.8
Hyatt Prairie Reservoir	5/3	0		0.0	--
Hyatt Prairie Res. Plw. (T)	5/1	--		0.1	10.9
Park Hdqts. (Disc. 83)	5/1	--		80.2	98.3a
Park Headquarters (Rev.)	4/29	170		80.8	98.9
Quartz Mountain	e				3.2
Quartz Mtn. Pillow (T)	5/1	--		0.0	9.9
Seven Mile	e				52.5
Seven Mile Pillow (T)	5/1	--		25.3	--
State Line (Calif.) *	e				--
Strawberry	e				10.3
Strawberry Pillow (T)	5/1	--		0.0	8.6
Summer Rim *	5/3	34		14.6	27.7
Summer Rim	e				--
Summer Rim Pillow (T)	5/1	--		29.9	38.9
Sycan Flat *	e				--
Taylor Butte	e				0.8
Taylor Butte Pillow (T)	5/1	--		0.3	0.0

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 1

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	Last Yr., Ave. c
LAKE COUNTY, GOOSE LAKE WATERSHEDS AREA 11					
Adin Mountain (Calif.)	4/26	26	10.3	23.9	6.7
Bald Mountain (Nev.)	e			--	--
Barley Camp *	e			--	--
Bear Flat Meadow *	e			--	--
Camas Creek #1	4/26	16	6.5	14.5	2.9
Camas Creek #2	4/26	23	8.3	19.3	1.9
Cedar Pass (Calif.)	e			--	14.5
Colvin Creek *	e			--	--
Cox Flat *	e			--	--
Crowder Flat (Calif.)	e			--	--
Dismal Swamp (Calif.) *	e			--	--
Dismal Swamp #2 Plw. (T)	5/1	--	39.8	--	29.5
Finley Corrals *	No Report			30.7	8.8
Hart Mountain *	e			--	--
Little Bally Mtn. (Nev.)	e			--	--
Mt. Bidwell (Calif.)	e			--	27.2
North Star (Calif.)	e			--	--
Patton Meadows *	5/3	43	18.9	31.5	14.0
Quartz Mountain	e			3.2	0.0
Quartz Mountain Plw. (T)	5/1	--	0.0	9.9	--
Reservation Creek (Calif.)	e			--	--
Rogger Meadows *	e			--	--
Sherman Valley *	e			--	--
Silver Creek	e			--	--
Silver Creek Plw. (T)	No Report			18.0	--
State Line (Calif.) *	e			--	--
Strawberry	e			10.3	1.8
Strawberry Plw (T)	5/1	--	0.0	8.6	--
Summer Rim *	5/3	34	14.6	27.7	--
Summer Rim	e			--	16.2
Summer Rim Plw. (T)	5/1	--	29.9	38.9	--
Sycan Flat *	e			--	--

\* Aerial

TR = Trace

T = Telemetry Measurement  
 (DISC. ##) = Snow Course  
 manual measurement discontinued  
 in year shown-estimates to be  
 made for 5 years.

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	Last Yr., Ave. c
HARNEY BASIN WATERSHEDS AREA 12					
Blue Mountain Springs	e				
Blue Mtn. Spgs. Plw. (T)	5/1	--	36.6	--	--
Buck Pasture *	e			--	18.0
Buckskin Lake *	e			--	--
Call Meadows *	e			--	--
Delintment Lake (DISC.82)	e			--	--
Disaster Peak (Nev.)	e			--	7.4
Emigrant Butte (DISC. 82)	e			--	--
Fish Creek (Rev.)	e			--	8.7
Fish Creek Plw. (T)	5/1	--	59.9	54.3	--
Government Corrals	e			--	--
Hart Mountain *	e			--	--
Idlewild Camp Alt(DISC.82)	e			0.0a	0.3
Izee Summit (DISC. 82)	e			2.2a	2.1
Lake Creek R.S.	e			7.1	--
Lake Creek R.S. Plw. (T)	5/1	--	9.7	9.9	--
Oregon Canyon *	e			--	--
Pueblo Summit *	e			--	--
Rock Springs	e			0.0	0.5
Rock Springs Plw. (T)	5/1	--	1.6	0.0	--
Silvies	e			--	--
Silvies Pillow (T)	No Report			--	--
Snow Mountain (DISC.82)	e			--	--
Snow Mountain Plw. (T)	5/1	--	22.2	22.9	--
Starr Ridge	e			1.0	--
Starr Ridge Pillow (T)	5/1	--	0.6	0.0	--
Stinking Water	4/30	0	0.0	0.0	0.0
Trout Creek *	e			24.8	--
"V" Lake *	e			--	--

# BASIC DATA SUPPLEMENT 2

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average
Arbuckle Mountain (Morrow County)	5400	From 4/1 To 5/1	5.6		
Beaver Reservoir (Union County)	5150	From 4/1 To 5/1	3.3		
Bigelow Camp (Josephine County)	5120	From 4/1 To 5/1	6.6		
Big Red Mountain (Jackson County)	6250	From 4/1 To 5/1	4.9		
Billie Creek Divide (Jackson County)	5310	From 4/1 To 5/1	6.3		
Blazed Alder (Clackamas County)	3650	From 4/1 To 5/1	11.2		
Bourne (Baker County)	5800	From 4/1 To 5/1	3.4		
Bowman Springs (Union County)	4580	From 4/1 To 5/1	3.8		
Cascade Summit (Lane County)	4880	From 4/1 To 5/1	7.8		
Chemult (Klamath County)	4760	From 4/1 To 5/1	3.7		
Clackamas Lake (Clackamas County)	3400	From 4/1 To 5/1	4.5		
Clear Lake (Wasco County)	3500	From 4/1 To 5/1	4.0		
Cold Springs (Klamath County)	6100	From 4/1 To 5/1	7.1		
County Line (Umatilla County)	4800	From 4/1 To 5/1	2.7		
Daly Lake (Linn County)	3600	From 4/1 To 5/1	8.0		
Derr (Wheeler County)	5670	From 4/1 To 5/1	5.0		
Diamond Lake (Douglas County)	4600	From 4/1 To 5/1	6.3		
Emigrant Springs (Umatilla County)	3925	From 4/1 To 5/1	3.5		
Fish Lake (Jackson County)	4665	From 4/1 To 5/1	5.3		
Fourmile Lake (Klamath County)	6000	From 4/1 To 5/2	7.1		
High Ridge (Umatilla County)	4150	From 4/1 To 5/6	5.0		
Hogg Pass (Jefferson County)	4755	From 4/1 To 5/1	8.7		

The above readings are all telemetry transmitted measurements.

# BASIC DATA SUPPLEMENT 2

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average
Holland Meadows (Lander County)	4900	From 4/1 To 5/1	9.5		
Hyatt Prairie (Jackson County)	4900	From 4/1 To 5/1	4.5		
Irish-Taylor (Deschutes County)	5500	From 4/1 To 5/1	6.1		
Jump Off Joe (Linn County)	3400	From 3/31 To 5/1	8.6		
King Mountain #2 (Douglas County)	4500	From 4/1 To 5/1	8.0		
Lake Creek (Grant County)	5120	From 4/1 To 5/1	3.4		
Little Meadows (Linn County)	4000	From 3/29 To 5/1	8.1		
Lucky Strike (Umatilla County)	5050	From 4/1 To 5/1	3.4		
Madison Butte (Morrow County)	5250	From 4/1 To 5/1	4.7		
Marion Forks (Linn County)	2730	From 4/1 To 5/1	6.5		
McKenzie (Lane County)	5000	From 3/31 To 5/1	10.5		
Moss Springs (Union County)	5850	From 4/1 To 5/1	4.9		
Mt. Hood Test Site (Clackamas County)	5400	From 4/1 To 5/1	12.0		
Mt. Howard (Wallowa County)	7910	From 3/31 To 4/30	6.6		
Mud Ridge (Clackamas County)	4050	From 4/1 To 5/1	6.3		
New Crescent Lake (Klamath County)	4800	From 4/1 To 5/1	4.1		
North Fork Reservoir (Multnomah County)	3120	From 3/30 To 5/1	11.9		
Ochoco Meadows (Crook County)	5200	From 4/1 To 5/1	3.7		
Peavine Ridge (Clackamas County)	3500	From 4/1 To 5/1	5.9		
Quartz Mountain (Lake County)	6300	From 4/1 To 5/1	2.9		
Railroad Overpass (Lane County)	2750	From 4/1 To 5/1	6.4		

The above readings are all telemetry transmitted measurements.

# BASIC DATA SUPPLEMENT 2

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average
Roaring River (Lane County)	4900	From 4/1 To 5/1	7.8		
Rock Springs (Grant County)	5100	From 3/31 To 5/1	1.0		
Salt Creek Falls (Lane County)	4000	From 4/1 To 5/1	9.4		
Santiam Junction (Lane County)	3650	From 4/1 To 5/1	7.6		
Seven Mile (Klamath County)	5725	From 4/1 To 5/1	5.8		
Silver Creek (Lake County)	5720	From 4/1 To 5/1	2.9		
Silvies (Harney County)	6900	From 4/1 To 5/1	6.8		
Snow Mountain (Harney County)	6220	From 4/1 To 5/1	4.5		
Starr Ridge (Grant County)	5156	From 4/1 To 5/1	3.0		
Strawberry (Lake County)	5760	From 4/1 To 5/1	2.3		
Summer Rim (Lake County)	7100	From 4/1 To 5/1	3.5		
Summit Lake (Klamath County)	5600	From 4/1 To 5/1	10.1		
Taylor Butte (Klamath County)	5040	From 4/1 To 5/1	2.2		
Three Creek Meadows (Deschutes County)	5650	From 4/1 To 5/1	3.0		
Tipton (Baker County)	5100	From 4/1 To 5/1	2.3		
Wolf Creek (Union County)	5720	From 3/31 To 5/1	2.0		

The above readings are all telemetry transmitted measurements.







# The Following Organizations Cooperate in the Oregon Snow Survey Work

## STATE

*Idaho Cooperative Snow Surveys  
Nevada Cooperative Snow Surveys  
Oregon State University  
Oregon Department of Water Resources  
Soil and Water Conservation Districts of Oregon*

## COUNTY

*Douglas County Water Resources Survey*

## FEDERAL

*Department of Agriculture  
Cooperative Extension Service  
Forest Service  
Soil Conservation Service  
Department of Army  
Corps of Engineers  
Department of Commerce  
NOAA, National Weather Service  
Department of Energy  
Bonneville Power Administration  
Department of the Interior  
Bureau of Land Management  
Fish and Wildlife Service  
Geological Survey  
Bureau of Reclamation*

## PUBLIC UTILITIES

*Pacific Power and Light Company  
Portland General Electric Company  
California-Pacific National*

## MUNICIPALITIES

*City of Baker  
City of La Grande  
City of Portland  
City of The Dalles  
City of Willa Walla*

## IRRIGATION DISTRICTS

*Arnold Irrigation District  
Associated Ditch Companies  
Burnt River Irrigation District  
Central Oregon Irrigation District  
East Fork Irrigation District  
Grants Pass Irrigation District  
Hood River Irrigation District  
Jordan Valley Irrigation District  
Juniper Flat Irrigation District  
Lakeview Water Users, Incorporated  
Medford Irrigation District  
Middle Fork Irrigation District  
North Board of Control - Owyhee Project  
Ochoco Irrigation District  
Rogue River Valley Irrigation District  
South Board of Control - Owyhee Project  
Squaw Creek Irrigation District  
Talent Irrigation District  
Tumalo Project  
Vale - Oregon Irrigation District  
Warm Springs Irrigation District*

## PRIVATE ORGANIZATIONS

*The Crag Rats, Hood River, Oregon*

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
1220 S.W. THIRD AVE.  
PORTLAND, OREGON 97204

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"The Conservation of Water begins  
with the Snow Survey."

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